Surface Traversing Apparatus and Method

Abstract of the Disclosure

The invention concerns a surface traversing apparatus that includes a frame, a seal having a seal perimeter that is mounted to the frame, and a drive configured to move the apparatus relative to the surface. The seal perimeter is adapted substantially for rolling contact with the surface to be traversed. The device is capable of suction adhering and moving along horizontal, vertical, inverted surfaces and the like, and overcoming obstacles or surface irregularities while maintaining suction adhesion to the surface. The device can be propelled along the surface with a locomoting rolling seal assembly, which provides both a seal to affect the vacuum adhesion and the locomotion to drive the device across the surface.

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